

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022065**Date Inspected:** 21-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 14, OBG 14W (NWIT # 08586)

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

SEG3020BB-100~103, 105~108

SEG3020BB-104 [VT Reject (Due to incomplete welding near cope hole, informed to ZPMC &amp; AB/F)]

BAY 14, OBG 14W (NWIT # 08588)

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

SA3174-001-013

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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OBG Trial Assmely, OBG 13AE (NWIT # 08589)

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

SEG3007AD-028, 030

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 14W:

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020B-054 [Floor Beam (FB) 3445A to Side Plate (SP) 3137A, complete joint penetration (CJP) weld at PP128.7]. The welder is identified as 067949 and was observed welding in 3G position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by this QA appeared to comply with welding procedure specification (WPS): B-T-2233-ESAB.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: Seg3020BD-009 [East Cable Horizontal stiffener plate (X5080D) on Vertical Shear Plate sub-assembly (SA3451A) to Anchor Plate (AP3032A), CJP weld at PP126]. The welder is identified as 045246 and was observed welding in 4G position. ZPMC QC was identified as An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1. See attached photograph for more detail.

The SMAW process on weld joint no: SA3450-012 [Brace Plate (X5071B) to stiffener X5078C on SA3450A, CJP weld]. The welder is identified as 051348 and was observed welding in 4G position. ZPMC QC was identified as An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-B-U2-FCM-1.

The SMAW process on weld joint no: SEG3020G-012, 013 [Edge Plate (EP) 3030E to Floor Beam (FB) 3341A, Fillet weld at PP128]. The welder is identified as 067942 and was observed welding in 4F position. ZPMC QC was identified as An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2114-FCM-1.

The SMAW process on weld joint no: SEG3020J-025, 026, 083, 084 [Edge Plate (EP) 3030E to Floor Beam (FB) 3335A, Fillet weld at PP127.5]. The welder is identified as 069683 and was observed welding in 4F position. ZPMC QC was identified as An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2114-FCM-1.

The SMAW process on weld joint no: SEG3020J-027, 028, 085, 086 [Edge Plate (EP) 3030D to Floor Beam (FB) 3335A, Fillet weld at PP127.5]. The welder is identified as 069683 and was observed welding in 4F position. ZPMC QC was identified as An Qing Xiang. The welding variables recorded by this QC appeared to comply with

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## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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WPS: B-P-2114-FCM-1.

The SMAW process on weld joint no: SEG3020AJ-286 [I-rib stiffener (RS3517N) to Bottom Plate (BP) 3088A, CJP weld in between PP127 to PP127.5]. The welder is identified as 037779 and was observed welding in 2G position. ZPMC QC was identified as An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2212-Tc-U4b-FCM-1.

The SMAW process on weld joint no: SEG3020AJ-290 [I-rib stiffener (RS3517P) to BP3089A/3090A, CJP weld in between PP127.5 to PP128]. The welder is identified as 066398 and was observed welding in 2G position. ZPMC QC was identified as An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2212-Tc-U4b-FCM-1.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Gaikwad,Umesh	Quality Assurance Inspector
<b>Reviewed By:</b>	Peterson,Art	QA Reviewer

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